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A WEEKLY EPITOME
OF
CURRENT MEDICAL LITERATURE.

MEDICINE.

(248) Acute Transitory Œdema of Lung during the Pneumonic Crisis.

DR. MAX KAHANE, of Vienna, records two remarkable cases of acute transitory œdema of the lung occurring just at the commencement of crisis in the course of acute pneumonia (*Centralblatt für klinische Medicin*, No. 10, 1891). Two labourers were under observation at the same time, all points of the two cases closely resembling one another. The patients had both been more or less addicted to alcohol, and had both reached the point of crisis from ordinary acute pneumonia, the temperature having just begun to fall. When seen at this period they were found to be extremely collapsed, with very weak heart action, covered with cold sweat and cyanotic. The chests were examined, and in both cases all the physical signs of œdema of the lung were present over the greater part of both lungs. Restoratives being promptly applied, a marked change was almost immediately observed, and on further examination it was found that the signs of œdema were rapidly clearing up, and in a very short time had disappeared entirely. The normal course of "crisis" followed, and the patients made a good recovery. There was no excessive expectoration of watery fluid from the lungs after the subsidence of the œdema. Œdema of the lungs is not by any means rare after acute pneumonia, but it is almost always fatal. The sudden onset in cases where the heart's action had become so greatly depressed, just at the moment when the great change of crisis had begun, is remarkable, but not easily explainable.

(249) Results of Treatment of Purulent Pleuritic Effusion.

PROFESSOR KÖNIG, of Göttingen, places on record (*Berl. klin. Wochenschrift*, No. 10, 1891) the results obtained by him in the treatment of 76 cases of purulent pleuritic effusion during the last twelve years. Of the 76 cases, 10 ended fatally, but these were for the most part advanced cases from the beginning of treatment, some pyæmic, others with advanced tuberculous disease of the lung, etc.; 36 of the successful cases were simple empyema, 16 were complicated by fistulous openings already formed, 6 with putrid pus pent up, and 3 with openings into a bronchus; 9 cases were due to direct injury—gunshots, stabs, or other wounds. Of 66 cases, 59 could be regarded as cured, or, put in a different way, 71 per cent. of the cases treated were well and fit for work within two months. Details are given of the steps of the usual operation adopted. The opening was generally made at the level of the fifth or sixth rib and about the area of the anterior axillary line. Resection of a portion of rib is advised in most cases. If evacuation by simple opening is not complete it may be advisable to wash all thick shreds away with a stream of warm water, but antiseptic fluids are not necessary, nor is any further irrigation as a rule required if a good opening is maintained. The injection of carbolic acid solutions is condemned as unnecessary and harmful. A double incision is not required. The bandages should be made to include the arm on the affected side, and the patient should be encouraged to lie on that side, and for the first few days his body should be tilted three or four times a day, either by himself or by an attendant, so that the opening in the chest wall becomes the most dependent part. This is to ensure drainage from all parts of the pleural cavity in turn, but does not necessitate a change of the dressing after each change of position. The temperature must be taken as the guide to indicate whether the pus is being freely drained, and on any rise the wound should be dressed and any obstruction to the flow of fluid removed.

(250) Transmission of Tuberculosis by Cow's Milk.

AT a meeting of the Paris Académie de Médecine on March 3rd, Dr. A. Ollivier (*Bull. d. l'Acad. de Méd.*, 3me Sér., t. XXV, No. 9) corrected some errors which had crept into his previous communication on the transmission of tuberculosis by cow's milk (SUPPLEMENT, March 14th, 1891). The cow which was said to have supplied milk to the pupils at the convent had been there *three* not nine years, having been purchased in May, 1886; as the girl who formed the subject of M. Ollivier's communication left the school in the previous April, it was impossible that she could have derived the infection from that cow. Again, the milk furnished by the cow was, it is stated, consumed chiefly by the teachers and the servants, and only quite exceptionally by the pupils, and then it was always boiled. There had been no case of tuberculous disease except among the children. M. Ollivier, however, while giving up the case of tuberculous meningitis which he reported, still thinks the occurrence of twelve cases of tuberculosis in the same boarding school within four years something more than a mere coincidence.

(251) Recovery after Severe Injury to Brain.

DRS. DEWEY and RIESE (*American Journal of Insanity*, January 1891) report the case of a butcher,

aged 32, who was attacked by a lunatic, receiving a blow from a butcher's cleaver on the head about three-fourths of an inch above the occipital protuberance, a piece of bone three inches by two and a half being chopped off; the lower border of the bone was broken off, and remained hanging attached by the soft parts; the dura mater was intact. Momentarily stunned, he soon recovered, and went out, starting to walk home; but when he had gone about a hundred yards he became dizzy, and had to be assisted the remainder of the distance. The patient was seen by Dr. Dewey almost immediately, and beyond being somewhat faint presented no bad symptoms; the parts were carefully freed from dirt and hair, and replaced with antiseptic precautions, and the scalp stitched up. The patient made an excellent recovery, and was able to return to his work in two months' time. He had no motor or sensory symptoms at any time, and eight months later was still in good health, and showing no ill effects from the injury.

SURGERY.

(252) Occlusion of the Intestine following Laparotomy.

Dr. Maurice Collas (*Thèse de Paris*, No. 267, 1891) has collected a series of twenty-three cases of this nature. Of these, eighteen were operations for ovariotomy, and the remaining five followed other operations on the pelvic organs. Fifteen of the cases had their true nature revealed only at the *post-mortem* examination, whilst operations were performed in the remaining cases, and in four instances were completely successful. Most frequently the symptoms of intestinal occlusion appeared within ten days after the operation, but they were delayed in one case as long as six years. In most instances the bowel was occluded by inflammatory adhesions or subsequent cicatrical contractions. In more than one instance volvulus occurred, but it seems doubtful how far this could be ascribed to the results of the previous operation. When the symptoms did come on they were in all cases rapid in their onset, and it would appear that in such cases there is but little hope to be placed in any other treatment but laparotomy.

(253) Fæcal Tumour in Abdomen.

Cases of impaction of fæces in the rectum are frequent, but it is not so common to find a true abdominal tumour made up of accumulated fæces. Such a case has been recorded by Dr. Samuel Abbot in the *Boston Medical and Surgical Journal*, January 29th. The patient was a nervous, undersized, single woman, aged 30. She had been constipated from infancy, owing to a congenital diaphragm which stretched across the lower part of the rectum. She took, when arrived at maturity, all sorts of laxatives. At length, characteristic diarrhœa set in, and for the first time she missed a monthly period. A large pyriform tumour filled the abdomen; it extended from the pubes nearly to the ensiform cartilage, and from one ilium to the other. The surface was somewhat irregular, as hard as wood, yet of somewhat unequal density on firm pressure, with slight depressions in different regions, suggesting spaces between folds of intestine. There was tenderness on pressure in the left iliac fossa. The tumour was very prominent between the epigastrium and umbilicus, so that the patient had for some time been unable to wear stays. The congenital diaphragm could be detected on digital exploration; the tip of the finger was passed through its opening and touched a mass of firm fæces. The malformation did not allow of the use of the scoop. Saline purgatives were given freely, producing watery motions, which succeeded in breaking down the mass by degrees. Within a few days frequent evacuations caused tenesmus, relieved by opiates. On the thirteenth day the discharges were very free and less watery than before. The abdomen was tympanitic, and no masses could be detected except in the left iliac fossa, which was now hardly tender. On the twenty-fifth day a formed motion passed. The catamenia reappeared, the appetite returned, and the patient once more became healthy, after ailing for years.

(254) Intubation of the Larynx.

Ranke (*Centralbl. f. Chir.*, March 7th, 1891, p. 195) gives some interesting statistics on intubation He has collected 364 cases of primary diphtheria in which intubation was performed, of which 132 recovered, giving a percentage of just over 36 per cent. of recoveries. In 849 cases of tracheotomy, the percentage of recovery was 39 per cent. From these statistics it appears that there is but little difference between the recoveries after the two operations. A further examination of the statistics, however, reveals that in the earlier years of life, in which tracheotomy is so fatal, intubation is far more successful, and in the intubated cases the proportion of pneumonia cases is much less.

(255) Surgical Anatomy of Appendix Vermiformis.

The following observations on the anatomy of the appendix vermiformis recently published by Dr. John Ferguson, of Toronto (*Int. Jour. Med. Sci.*, January, 1891) are of interest from their bearing on the surgical treatment of perforative appendicitis. The author has during the past eight years made 200 dissections for the purpose of elucidating certain points regarding the appendix. In 123 instances this organ was supplied with a mesentery of its own, and so placed that a perforation of its wall would have opened directly into the peritoneal cavity. In the remaining 77 cases the appendix was so placed and covered by peritoneum that a perforation would have opened into the subperitoneal tissue and there established diffuse cellulitis. In 7 of the 200 cases there was evidence of old-standing lesions and perforations. This last fact Dr. Ferguson regards as an important one, as it indicates the possibility of recovery after such a lesion of the appendix. Foreign bodies were found in the appendix in 15 instances.

(256) A New Operation for Spasmodic Wry-neck.

Dr. W. W. Keen has lately published (*Annals of Surgery*, January) a paper read before the Philadelphia Neurological Society on a new operation for spasmodic wry-neck. This consists in division or exsection of the nerves supplying the posterior rotator muscles of the head. After having made a number of dissections, the author formulated the steps of an operation which he has repeatedly done on the cadaver, and once on the living subject. The nerves to be resected in this operation are the posterior divisions of the first three cervical nerves, by which the chief posterior rotators of the head, namely, the splenius capitis, the rectus capitis posticus major, and the obliquus inferior, are supplied. The external incision is a transverse one about 2½ or 3

inches long, made about half an inch below the level of the lobule of the ear, from the middle line of the neck posteriorly. The trapezius is divided transversely, and afterwards the complexus, care being taken to spare the great occipital nerve. The posterior division of the second cervical nerve is then divided or exsected. The suboccipital nerve is next looked for in the suboccipital triangle, and traced down to the spine and divided. The external trunk of the posterior division of the third cervical nerve is then exposed below the great occipital, and divided close to the bifurcation of the nerve trunk. The only difficulty in Dr. Keen's case was the depth of the wound, which made it troublesome to get a good light, and rendered the mechanical steps of the operation rather difficult. The hæmorrhage, though free, could be easily controlled.

MIDWIFERY AND DISEASES OF WOMEN.

(257) Fœtid Milk in Human Mammary Glands.

Dr. Jorissenne (*Archiv. de Tocol. et de Gynéc.*, February, 1891) had under his care in 1874 a patient of slightly tuberculous aspect, though now, in 1891, she is in good health. On October 5th, 1874, she was delivered by forceps. She suckled her child freely till December 7th, when she was absent from it for seven hours and a half. This space of time included a drive one hour long, five hours and a half walking, and one hour's rest for refreshment. Immediately on her return home she gave her child the breast. The milk was horribly fœtid—like rotten eggs. It made her feel ill, and her relatives could not stay in the same room with her. Yet the infant sucked with avidity; however, it was violently sick. Next day the milk was sweet, and the child and also the mother quite well. The breasts showed no sign of hardness, engorgement, etc. The nipples were healthy. The patient told Dr. Jorissenne that on several previous occasions she had noticed that when she delayed giving the child the breast at the usual times the milk became fœtid. Dr. Jorissenne had no further opportunity of observing this putrefaction of milk, as it did not recur. The patient was red-haired; but he has carefully examined the milk of many red-haired women since 1874, and failed to find that it showed any special tendency to putrefy or even to turn sour, in the open air or in a close room, more quickly than milk from a black or fair-haired woman. The avidity with which the infant imbibed the putrid milk was remarkable; its stomach was more sensitive than its nose and tongue. Evidence as to the acuteness of taste in the infant is imperfect. During the first few days of extrauterine life the sense seems undeveloped. The child will take solutions of raw salines without syrup, though a few weeks later it will reject the same compounds nicely flavoured. The sense of sweetness is early developed. At the end of a few weeks an infant likes sugar, and dislikes cow's milk unless sweetened artificially. Children six months old, or older, will lick ill-tasting colours off their toys. The fact remains that, in Dr. Jorissenne's case, the child liked a milk that smelt intensely fœtid and must have tasted nasty, according to an adult's idea of taste.

(258) Recurrence of Ovarian Cysts.

Dr. Schwartz (*Annales de Gynéc.*, January, 1891) recently read before the Société de Chirurgie de Paris a communication by M. Michaux on a patient, aged 63, from whom an ovarian cyst was removed by M. Labbé four years ago. The tumour was unilocular, thin walled, and bore no solid growths. Three years and a half later a new growth developed in the scar, and at the end of six months it was found to bear all the characters of a cancer, with infection of the inguinal glands. It might have been a graft from the ovarian tumour, but M. Michaux admitted that primary cancer of the cicatrix was an equally probable explanation. M. Routier, a few weeks previously, removed from a woman, aged 54, a well pedunculated ovarian sarcoma, with no sign of peritoneal infection. At the end of a fortnight, when the patient was convalescent, two nodules developed in the abdominal cicatrix, and microscopic examination proved that they were sarcomatous. Cauterisation of the wound, however, was followed by the development of a healthy, not sarcomatous, scar. There was evidence of dissemination of the growth in the abdominal cavity. M. Terrillon had operated for ruptured cyst, in one case a fortnight, and in a second three weeks, after the rupture. The abdomen was full of gelatinous material; in one instance an adenomatous mass had developed in the intestine; it was removed and did not form again. At the end of a few months, however, a tumour developed in both cases, and in both the new growth lay in the omentum. The secondary tumour was removed from the first case eighteen months ago, and the patient was then (December, 1890) free from any sign of recurrence. The second patient underwent operation three weeks before. M. Lucas-Championnière had found that the general aspect of a malignant ovarian cyst was, as a rule, easy to recognise, but in some cases the tumour appeared to the naked eye perfectly innocent. M. Bouilly, at the beginning of 1889, removed some pedunculated uterine fibroids, one of which had undergone cystic degeneration; at the same time he freely excised a warty mass from the umbilicus. In January, 1890, the patient died with signs of cancer of the omentum and ascites. The primary source of the cancer was here uncertain. M. Quenu stated that recurrence of ovarian cysts was now rare, as the pedicle was properly treated, yet when secondary growths developed, peritoneal granulations might have been overlooked during the operation. Neoplastic and inflammatory granulations were at first indistinguishable. M. Lucas-Championnière maintained, contrary to M. Quenu, that there might be a histological difference between ovarian cysts which looked innocent and did not recur after removal and cysts which looked innocent and did recur. Pathologists had not found out the difference, but that did not prove that none existed.

(259) Tumours caused by Included Fœtus.

It sometimes happens that, instead of a second embryo becoming impacted in the visceral arches of another, it becomes enclosed within its abdominal cavity, so as to form a tumour. A case of this kind ("fœtus in fœtu") was recorded by Dr. Kolisko in the *Wiener med. Wochenschr.*, No. 20, 1890. An infant was born healthy in appearance, but the abdomen was distended, especially on the right side. Fluctuation was detected, and cyst of the right kidney diagnosed. On tapping, a pint of a brownish fluid escaped. The child died, when five weeks old, of bronchitis, with pemphigus and fever. A cyst was discovered in the abdominal cavity, reaching from the liver to the pelvis and invested anteriorly by peritoneum. It arose

from behind the right kidney. Two prominences arose from its inner wall. One was of the size of a plum and covered with epithelium; it bore an appendage like a rudimentary limb, and was connected with the opposite side of the cyst by a fibrous band. This band was probably the imperfect funis described in other cases of included fœtation. The second prominence included unmistakable rudiments of a face; not only teeth and lower jaw, but a tongue was also detected. In the case described by Nathaniel Highmore (second of that name, and not the Highmore associated with the antrum) in 1814, the fœtal cyst was intimately connected with the duodenum and jejunum, and its cavity was so vascular that the patient, a boy aged 15, died of hæmorrhage. In G. W. Young's case, the cyst apparently arose from between the mesocolon and mesentery; the patient lived nearly ten months. The parts from Young's and Highmore's cases are preserved in the Museum of the Royal College of Surgeons.

(260) Chronic Endometritis: Uncontrollable Vomiting.

Dr. Géhé (*Archiv. de Tocol. et de Gynéc.*, January, 1891), had under his care last spring a married woman, aged 28. She had had one child ten years previously, and her confinement was followed by lumbar and hypogastric pains. As time passed on the pains became permanent. Free leucorrhœa existed. Fits of violent vomiting set in, and were always preceded by intense pain in the epigastrium, radiating to the loins and shoulders. After the sickness the pain disappeared. As time passed on the patient became greatly debilitated—a chronic invalid in fact. Morphine, milk diet, etc., proved useless. On examination, Dr. Géhé "detected the signs of chronic endometritis, with eversion of the cervical mucosa; the appendages were free from disease." The uterine cavity was cauterised with Paquelin's instrument, the parts being washed with an antiseptic solution before and after the cauterisation. No more vomiting occurred, but the abdominal pain persisted. A fortnight later the cervix and its canal were touched with nitrate of silver. This procedure was repeated once a week for about five weeks, the vagina being washed out with antiseptics night and morning. At the end of that period the epigastric pains had definitively ceased. The patient had a good appetite, and rapidly recovered.

(261) Hermaphroditism: Sex not Identified till Twenty-first Year.

Dr. G. Tully Vaughan (*New York Med. Journ.*, January 31st, 1891) describes a case where a black, aged 21, applied at a hospital on account of pains, which were afterwards diagnosed as dysmenorrhœa. The patient, who proved to be a female, was 4 feet 11 inches in height, beardless, and of feminine appearance like a lad of 14. The mammæ were developed. A penis nearly 1 inch long existed; the corpora cavernosa, corpus spongiosum, glans, and corona were perfect; the prepuce well developed and capable of retraction. The urethra, however, did not run through the penis. The frænum ran downwards into a scrotum-like structure for over 1 inch, and then divided, running into a pair of internal labia, embracing a meatus urinarius of the female type. The scrotum really consisted of the labia majora; that on the right side was the better developed, and contained two glands of equal size, one a little above the other. The lower gland felt like a small testicle; from it a cord could readily be traced to the inguinal canal. The upper gland was very tender on pressure, and became swollen and painful about once a month, and so the patient wished it removed. After the pains had subsided (in the course of treatment a distinct menstrual "show" occurred) the patient was examined by recto-abdominal palpation. A uterus, with two swellings on each side, was detected. The right swelling was hard, the left softer, feeling like a prolapsed ovary or enlarged tube. The urethra led into the bladder, but on removing the director and passing it through the meatus in a more backward direction it entered a channel between the bladder and rectum, and touched the uterus-like body. The director returned covered with blood. The patient stated that her desire was for men, and that she had more than once had connection with women without any pleasure. This patient might have raised a question as to right of suffrage, as in the case of Levi Suydam (*Amer. Journal Med. Sciences*, July, 1847), quoted by Taylor and by Tidy, in their textbooks on medical jurisprudence.

(262) The Fœtus in Cases of Battledore Placenta.

Dr. T. B. Hansen (*Hospital Tidende*, No. 31, 1890) noted some time since that in a case of placenta marginata the child was very ill-developed considering the duration of pregnancy. In order to ascertain whether there are sufficient grounds for believing that this placental anomaly really influences the fœtus, he made a series of researches in the Copenhagen Lying-in Hospital. In 300 labours he found no fewer than 29 instances of placenta marginata. In 18 the anomaly was moderately marked, in 11 strongly marked. In the first group the fœtus was little if at all affected; indeed, some of the children were remarkably big and healthy. On the other hand, in the "strongly marked" series, the fœtus was often born prematurely, and nearly always short and light, in proportion to the normal standard at the corresponding stage of pregnancy. In 2 out of the 29 cases severe flooding took place at the beginning of labour; in none was the placenta deeply placed. Dr. Hansen investigated other placental anomalies. A fœtus, clearly born at term, bore all the appearances of a premature child. The portion of the placenta which lay nearest the orifice was completely atrophied. Three years previously the cervix had been amputated for some "inflammation." Atrophy of the lower uterine segment probably resulted, and this affected the development of the placenta, and hence, the nourishment of the child. There appears to be some relation between placenta marginata and previous bad labours and chronic disease of the thoracic viscera.

(263) False "Rigidity of the Cervix" in Labour.

Dr. Auvard (*Archives de Tocologie*, January, 1891) dwells upon the details of a case of delayed first stage of labour, where rigidity of the cervix was simulated by the ill-effects which follow when that part of the uterus is inclined in a different direction to the body. A patient, aged 30, and married in 1881, had a lingering labour in 1883, and a second, where the membranes broke two days before delivery, in 1888. In 1890 she became pregnant for the third time. Pains began, at term, on December 4th, 1890. For five hours and a half next day they ceased; then they returned and became very strong; the waters came away at 5 A.M. on December 6th. When examined by Dr.

Auvard two hours later the os was found but slightly dilated; the membranes had refilled. The presentation was right occipito-posterior; the head bore on the lower segment of the uterus, which was strongly bent to the right, whilst the os looked to the left backwards. Thus the fœtus was being pressed in a faulty axis. The cervix felt like leather soaked in grease. The patient was exhausted: pains recurred every three or four minutes. Dr. Auvard made another examination half an hour later, and the different axes of the cervix and body struck him as significant. He then pressed his hand on the fundus, and pushed it from the right to the middle line, hooking the forefinger of his other hand, which was already in the vagina, into the os, so as to aid in the reduction of the uterus. A violent pain followed, when Dr. Auvard noted that the fœtal head, for the first time, bore well down on the os, which dilated considerably at once. He held the uterus in position, and a series of strong pains completed the dilatation in twenty minutes. Ten minutes later a living female child was born. The patient made a good recovery.

(264) Presentation of Sternum and Hands: Lactation induced by Massage.

Dr. Mensinga, of Flensburg (*Der Frauenarzt*, February, 1891) conducted last September a labour where this rare presentation occurred. The patient was a 4-para, the abdomen beginning to be pendulous. Dr. Mensinga was called in on account of great delay in the labour, and a hand had prolapsed. The bag of membranes was lax; he could feel first one hand, then the other, somewhat further back. He burst the membranes, and tried to reach the trunk. The thorax presented. Further to the left, his finger reached the child's mouth. The head was extremely extended, hence the protrusion of the thorax. He could do nothing with the case as long as the patient lay on her side or back, but on placing her on her belly he succeeded in getting hold of the right knee, turning and delivering. The child had occupied a transverse position, with its limbs and trunk placed as in a quadruped advancing with its head thrown back. The breech lay to the right, with the legs and thighs flexed beneath it; the throat and chin lay most to the left; the back of the head almost touched the breech, owing to the extreme extension of the head and the concavity of the spinal curve which lodged the occiput. This approximation of the head to the breech was diagnosed by abdominal palpation before the end of the labour; it naturally puzzled the obstetrician. The patient had never been able to suckle her children properly. On this occasion, the breasts were quite undeveloped; the practice of allowing the child to suck the dry nipples caused the mother great nervous irritation. Massage was practised, the breasts steadily increased, and on the seventh day the child was suckled. Early this February the mother was still suckling her child, and both were doing well.

DISEASES OF CHILDREN.

(265) The Cause and Prevention of Broncho-Pneumonia.

Dr. Ernest Mosny has contributed to the *Revue Mensuelle des Maladies de l'Enfance* (February and March) an interesting study of the lesions, causes, and prophylaxis of broncho-pneumonia. He distinguishes two types, and two types only, of broncho-pneumonia, and would apparently class under one or other head all examples of pneumonia in childhood. (1) True lobular pneumonia, which is nearly always secondary (to measles, whooping-cough, etc.), and in which the initial lesion is catarrhal bronchitis affecting the smaller tubes. (2) The form to which the term pseudo-lobar has been applied; it is, in Dr. Mosny's opinion a form of acute lobar pneumonia peculiar to children. The primary bronchitis, or, rather, bronchiolitis, of the first form is soon complicated by the extension of inflammation to the connective tissue surrounding the bronchioles and the companion arterioles, and to the adjacent alveoli. In the inflammation of the alveoli Dr. Mosny distinguishes three stages: (1) Splenification, the stage of rapid epithelial proliferation and desquamation; (2) red hepatisation, the stage of exudation of fibrin, red blood corpuscles, and a few leucocytes; (3) grey hepatisation, the stage of extensive diapedesis of leucocytes which replace the fibrinous exudation as that had replaced the epithelial cells. The process may go on to the formation of abscesses, or may end in resolution, with, however, in some cases, fibroid degeneration of the bronchial and alveolar walls. He considers not only emphysema, but also atelectasis, to be secondary lesions brought about mechanically. Bacteriological investigations were made in 16 cases, 13 secondary (measles 9, diphtheria 3, scarlatina 1) and 3 primary. The general conclusion is that secondary broncho-pneumonia is due not to the pathogenic organism of the disease in the course of which the broncho-pneumonia has occurred, but to one of two micro-organisms. As a rule the microbe is the streptococcus pyogenes; in rare cases it is the pneumococcus lanceolatus (Talamon-Fränkel). The last-named organism is that constantly found in the pseudo-lobar form. Both these microbes are frequently found among those present in the mouth and pharynx even during health. The lungs of a patient suffering from measles, or some other diseased condition lowering the general vitality, may become infected from this source, but, more commonly probably from want of cleanliness and antiseptics in the surroundings. This view appears to be confirmed by the experience of the results of the isolation wards in Paris; in these large numbers of children suffering from the same infectious disease were treated together and in rapid succession. Under these conditions the death-rate increased, and M. Grancher was driven to the conclusion that if by "isolation" was to be understood the accumulation in one place of numerous cases of the same disease, then this method led to an increase in the "secondary infections" or complications of the disease, and thus to an increased mortality. The remedy for this is to be found in antisepsis; that is, in disinfection of the wards, of the excreta of the patients, and of the clothes worn and the instruments used by attendants; remembering the possibility of auto-infection, the desirability of antiseptic applications to the nasopharynx is obvious.

(266) Transitory Blindness in Whooping Cough.

A few cases of blindness suddenly coming on during whooping cough are on record, and in a large proportion the patient died. Dr. George W. Jacoby adds two new cases both ending in

rapid recovery (*N. Y. Med. Jour.*, February 28th, 1891). In the first case, a girl, aged 6, sudden total blindness occurred several weeks after the commencement of a mild attack of whooping cough; the pupils were widely dilated, and immobile to light or accommodation, and there was double optic neuritis. Two days later the right eye could recognise large objects, and the pupil reacted to light: after two days more the left pupil also reacted, and large objects could be perceived with both eyes. Six weeks later vision was normal and the ophthalmoscopic examination was negative. In the second case, a boy, aged 8, in the fifth or sixth week of whooping-cough had severe headache and vomiting, lasting two days: on the fourth day when taken out of the dark room in which he had been for the previous three days he was found to be quite blind. When examined on the eighth day he was quite blind, but the pupils were of medium size, reacted well to light, and the fundus was normal. Two days later rapid improvement set in: for 24 hours he had right hemianopsia, but within four days of the commencement of the improvement vision was normal for the entire field. Dr. Jacoby quotes two cases, reported by Alexander, of which one resembled the second of his two cases, but ended in death preceded by coma. The other resembled his first case, but optic atrophy ensued. He also quotes some other cases less clearly described. He adopts Ebert's suggestion that the blindness is due to acute œdema of cerebral centres. The condition of the pupil in the two cases reported by Jacoby appears to be typical of two classes. If the pupillary reflex is retained the lesion must be, as von Graefe has pointed out, above the corpora quadrigemina and between them and the occipital lobes; if the reflex is lost, the lesion must be below the corpora quadrigemina. In the former prognosis as to vision, should the patient survive, is good, in the latter there may be permanent loss of sight.

PHARMACOLOGY AND THERAPEUTICS.

(267) The Open Treatment of Pulmonary Cavities. Professor Sonnenburg reports five cases in which he opened pulmonary cavities from the outside as a preliminary to treatment by injections of tuberculin (*Die Wirksamkeit des Koch-'schen Heilmittels gegen Tuberculose. Amtliche Berichte, etc.*, p. 837, *et seq.*). His method of procedure and the immediate results of the operation in the first four cases have already been described (Supplement, January 17th, 1891, p. 21). As soon as the slight reaction following the incision has subsided the injections are begun, and Sonnenburg says their effect can be followed as readily as on the skin and mucous membrane. The action of the remedy was well displayed in the case last operated on in which a cavity in the right apex was laid open. For a fortnight after the operation Koch's treatment was not employed. In strong contrast to what occurred in the other cases, the cavity remained greasy and discoloured, did not become clean, and showed no tendency to heal. As soon as the injections were begun the cavity was transformed into a healthy granulating wound. In all the cases a considerable amount of necrotic lung tissue was expelled, after which the cavities began to shrink; and, with regard to three of the patients, "one can already speak of almost complete cure." The result of the combinations of the injections with incision of pulmonary cavities has been to convince Sonnenburg that the treatment presents no danger, and offers good hopes of cure. In the three successful cases the general condition has improved; there are fewer tubercle bacilli in the sputum, and the patients have gained weight. Sonnenburg adds that further experience is required before trustworthy rules can be laid down for the guidance of the practitioner in the selection of suitable cases for the surgical treatment of pulmonary cavities. Much also has still to be learnt as to the right method of using tuberculin, particularly as to individualising the treatment.

Professor Caselli, of Genoa, has operated on two cases under the care of Professor Maragliano. The first patient was a man, aged 31, with a cavity in the left lung, at the level of the second intercostal space (*Gazzetta degli Ospitali*, February 15th, 1891). On February 2nd, chloroform having been administered, a portion of the second rib 8 centimetres in length was resected. The pleura was found firmly adherent to the chest wall. After two or three exploratory punctures with a Pravaz's syringe, the cavity was "struck;" an opening 5 centimetres long was then made into it with a Paquelin's cautery. The wound in the lung was 7 millimetres deep. There was no hæmorrhage. A moderate quantity of caseous material and sero-purulent fluid was cleared out of the cavity; both were found to contain very numerous bacilli. On exploring the cavity with the index finger, it was found to be ovoid in form, with irregular rough walls. A graduated probe passed from below upwards for 9¼, from before backwards 5½, and transversely for 6, centimetres. The field of operation was carefully disinfected, and the edges of the wound in the lung were stitched with nine points of silk suture to the wound in the chest wall. The cavity was stuffed with gauze and a dressing of cotton-wool applied. For the first twenty-four hours there was abundant expectoration of muco-pus and blood, after which there was no further hæmorrhage. There was a moderate amount of sero-purulent discharge from the wound, which was dressed twice a day. The temperature never exceeded 38.1° C. Caselli states that, if there had been no adhesions, he had intended to touch the surrounding pleura with Paquelin's cautery and then stitch it to the chest wall. In this way firm adhesions would have been established in from fifteen to twenty-four hours. The second patient was a woman aged 30, with a cavity at the base of the left lung, extending from the sixth to the ninth rib, between the scapular and mid-spinal lines. On February 23rd an incision was made along the ninth rib from the spine for a distance of 12 centimetres; a piece 8½ centimetres in length was resected from the ninth rib. The pleura was somewhat thickened and tense, but it was easy to see that the pleural sac was not obliterated; on puncture with a Pravaz's syringe, sero-fibrinous fluid was withdrawn. The parietal pleura was then incised, whereupon about 100 cubic centimetres of fluid of the same character escaped and pneumothorax was established. On digital exploration, it was found that there were loose adhesions between the two folds of the pleura, below, in front, and behind. The needle of the syringe was then pushed through the lung obliquely, from below upwards, to a depth of 5 millimetres, when a cavity was found containing dense pus mixed with caseous matter.

The cavity was next freely opened with Paquelin's cautery, when a large quantity of pus and *débris* escaped; it was completely emptied, partly by coughing and partly by irrigation with a 2 per cent. solution of boric acid. The pneumothorax gave little or no trouble. The size of the cavity was 10 centimetres in its long, by 4 in its short, diameter. The visceral and parietal layers of the pleura were stitched together with catgut, the cavity stuffed with gauze, and the wound dressed as in the first case. The operation lasted thirty-two minutes. On the following day the dressing was changed; the pneumothorax had disappeared and the cavity was discharging freely. It was again washed out with boric acid solution and a large drainage tube was inserted; the temperature, which had been 39.5° C., fell to 38.7° C. Both patients are doing well, but no further particulars as to the result of the operations are given. It does not appear that up to the present Koch's method has been used in combination with the surgical treatment, although the second patient had undergone two series of injections before the cavity was opened.

(268) Exanthem Produced by Rhubarb.

M. LITTEN (*Therapeut. Monatshefte*, December, 1890) records a case of severe skin eruption caused by rhubarb. The patient, a workman aged 45, presented himself at the Policlinic. His face was very much swollen and covered with scabs, mixed with abundant sanguineous and purulent exudation. The scalp, beard, eyelids, and lips were all involved. On further examination, the whole body was found to be covered with a polymorphous eruption, which, however, presented two special types, namely, hæmorrhagic eruptions and pustules. The hæmorrhages were scattered all over the body, and varied from the size of a bean to that of a small plate, the colour being of all shades between bright blood-red and brown. The pustules were also scattered plentifully over the whole body, and resembled those of pemphigus. In some places the individual pustules had become confluent and covered large areas. On the dorsum of the hands the blebs were filled with clear fluid, which had not gone on to pus formation. Removal of the scabs left shallow dirty-looking ulcers. The lymphatic glands were swollen and painful. Similar eruptions were present on the mucous membrane of the eyes, nose, lips, mouth, and throat, accompanied with great swelling. The tongue was also much affected, and this, together with the general condition of the mouth, prevented proper articulation. Blood was frequently passed from the urethra, but sometimes the urine was wholly free from it. The temperature was 103.3° F. The patient felt strong and well, and complained only of the eruption. The urine contained neither albumen nor sugar, but was of a deep brownish-yellow colour, and, on adding solution of caustic soda, became deep purple-red. The other systems were quite normal. The patient attributed the eruption to the following prescription which he had been ordered for constipation: ℞ sod. bicarb., gr. 120, infus. rhei. rad. ʒvi. He knew that rhubarb did not agree with him, as he had previously had slight skin eruptions after its use. He took half the above mixture at one draught in the morning, and shortly after suffered from rigors and pains in his limbs. During the evening his face, lips, and tongue began to swell, and next morning the eruption was fully developed as described above. When the patient had recovered, Litten administered to him another dose of rhubarb with the same result. Chrysophanic acid had no effect. Litten states that no other similar case has been recorded, but Goldenberg (*New York Med. Jour.*, December, 1889) described a similar, but less severe, instance of the same idiosyncrasy to rhubarb. The patient, a man of middle age, had been taking a mixture of rhubarb powder and soda for constipation, and had consumed in all 120 grs. of pulv. rhei. rad. He awoke one morning with a burning sensation in his face, and found it covered with blisters and pustules. When Goldenberg saw him during the day, the face was covered with brownish-red irregular pustules (a woodcut is given) about the size of a pea to that of a bean, and deeply infiltrated at the bases. There were a good many crusts, on removing which a moist, bleeding, fungoid surface was left. It was also present on both surfaces of the hands. The whole disappeared in a few weeks without treatment, leaving bluish pigmentation, but no cicatrices. It closely resembles pemphigus. There was no fever, and the general health was excellent. Goldenberg administered rhubarb to the man on two subsequent occasions, and each time a similar eruption appeared.

(269) Two Cases of Carbolic Acid Poisoning followed by Pneumonia.

DR. T. CUMING ASKIN (*Liverpool Medico-Chirurgical Journal*) reports the following: A man aged 36, who had been drinking heavily, took an unascertainable quantity of carbolic acid with suicidal intent. When seen he was perfectly livid, pupils contracted, conjunctivæ anæsthetic; brownish staining of skin on face, cheek, chin, and around mouth; mucous membrane of mouth and lips whitened; odour of carbolic acid from breath; breathing stertorous; skin cold and clammy, pulse very feeble, temperature subnormal. The stomach was washed out with warm water and a saturated solution of soda sulphate, some of which was left in it. Hot cloths were applied to the heart and changed every five minutes; sinapisms to calves and soles of feet. Atropinæ sulph. (gr. $\frac{1}{30}$) was injected hypodermically, and repeated in a quarter of an hour. The pupils soon became dilated; consciousness gradually returned, but was not completely recovered for some hours. Two days later delirium tremens was well marked, and dulness at the base of both lungs was discovered, with numerous crepitant *râles* at both bases, and some fever. He eventually made a good recovery. In the other case the patient, a woman aged 47, took a tablespoonful of carbolic acid by mistake. Her symptoms were very similar to those just described, except that there was no staining of the skin and that the coma was deeper. The same treatment was adopted, and with success; but the day after admission signs of double pneumonia were detected, of which she died five days later.

PHYSIOLOGY.

(270) Electrolysis of Animal Tissues.

DR. G. N. STEWART has published in the first volume of the *Studies from the Physiological Laboratory of the Owens College*, Manchester, a long original memoir on the subject of electrolysis of animal tissues. He finds that practically the whole of the conduction in animal tissues is electrolytic, and the electrolytes are principally the

mineral salts. Changes which occur in the proteids are produced by secondary electrolytic actions. In simple proteid solutions the effects vary to some extent with the current density. Alkali albumins formed at the cathode, and acid albumins at the anode, while in solutions of coagulable proteids there was also coagulation at the latter pole. With a strong current the proportion of coagulated proteid to acid albumin was greater than with a weak current. Blood, serum, defibrinated blood, solutions of hæmoglobin, bile, and urine were also used in the experiments. There was no indication that hæmoglobin, or any of its derivatives, plays the part of an ion. Acid hæmatin is formed at the anode; this remains partly in solution and is partly precipitated; when the current is strong the hæmatin is further decomposed, and is decolorised by the nascent oxygen or chlorine liberated. With certain strengths of current methæmoglobin is also formed at this pole, either preceding or accompanying the formation of acid hæmatin. Alkaline hæmatin is formed at the cathode rather later than acid hæmatin is at the anode. In blood the changes that occur are noticeable both in the pigment and the proteids, similar to those already mentioned. Among solid tissues, muscle was chiefly examined. The nuclei become prominent and the sarcous substance granular near the anode, while at the cathode the substance becomes more homogeneous, the striation being impaired. The chief chemical changes in the proteids are an increase in the neutralisation precipitate of the aqueous extract, and a corresponding decrease in the globulin at the cathode. At the anode the neutralisation precipitate is increased, but not so much as at the cathode, but the amount of globulin is more than correspondingly diminished, because part of the proteid is coagulated. The effects of electrolysis on the salts of muscle were studied by estimating the ash. Striking changes were found which, if produced within the body, would modify nutrition profoundly. The antiseptic action of the current was studied in the case of putrefactive organisms, and it was shown that it chiefly, if not entirely, takes place around the anode. An attempt is made to connect this knowledge with the applications of electrolysis in surgery and gynæcology, and a future communication on the physiological aspect of the question is promised.

(271) On the Decomposition and Absorption of Fats. In the SUPPLEMENT of December 6th, 1890, the remarkable case of lymphatic fistula used by I. Munk to study the fate of the fats absorbed from the intestine was referred to. Munk has continued his researches (*Arch. f. Physiol.* Phys. Abth., Heft 5 and 6, December, 1890, p. 581), but this time he used a fat with a high melting point. Seventeen hours after the last meal containing fat the patient took 20 grains of spermaceti, which melts at 53° C. In this fat palmitic acid, instead of being combined with glycerine, is combined with cetylalcohol. After three hours the fat in the lymph increased. The amount of fat in the lymph collected in thirteen hours was 3.93 grains, or 2.8 grains more than in the fasting condition, and representing 14 per cent. of the fat taken by the mouth. The fat of the chyle melted at 36° C., and did not contain spermaceti, nor was cetylalcohol obtained from it when it was decomposed. The chyle contained palmitin. This shows that apparently the spermaceti was split up in the intestine into palmitic acid and cetylalcohol. The former was absorbed and united with glycerine somewhere to form the palmitin which was present in the chyle. Dogs absorbed 51 to 59 per cent. of the spermaceti. Ph. v. Walther, working in Ludwig's laboratory at Leipzig (*Arch. f. Physiol.*, Phys. Abth., p. 329, 1890), confirms the observation of Munk that in animals fed on fatty acids the corresponding neutral fats occur in large amount in the chyle. Starving dogs were fed on albumin, starch, and 100 grains of fatty acids. Between five and seven hours after a meal a cannula was placed in the thoracic duct and the chyle collected. Confirming Munk's results, v. Walther found a large quantity of neutral fats in the chyle (reaching sometimes 2.13 per cent.); of fatty acids only $\frac{1}{30}$ to $\frac{1}{6}$ of the fatty food, and of soaps only 0.01 to 0.13 per cent. The synthesis of neutral fats from fatty acids must therefore be regarded as proved. It appears, however, from v. Walther's researches, that the fatty acids are transformed into neutral fats in the small intestine; at least, in dogs fed on fatty acids, eight to ten hours afterwards, neutral fats are found in the small intestine, and in the most favourable cases there was an equal amount, or relatively more, than the quantity of fatty acids present, but very little soaps. As, however, the amount of the fatty bodies found in the stomach and intestine after death, *plus* the amount excreted in the fæces, together with that collected in the chyle, does not account for all the fatty acids administered to the animal, it is evident that a part of the fatty acids, or the neutral fats synthetically formed from them, must pass away by some channels other than the chyle vessels, but so far it is not known how they disappear. The quantity of lecithin is increased both in the intestine and the chyle, but perhaps this is derived from the intestinal epithelium.

OPHTHALMOLOGY.

(272) The Influence of Rest on the Sensibility of the Retina to Light and Colour.

BASEVI (*Ann. di ottalm.*, vol. xviii, 6, p. 475) has made careful investigations upon himself and others as to the adaptability of the retina for white and coloured light. His results are very similar to those of Aubert, Peschel, and Treitel. The eyes of the person upon whom the experiments were about to be performed were rested in a partially darkened room for about fifteen or twenty minutes. The room was darkened with heavy curtains. The author found that after this period of rest the visual acuity had been increased threefold as measured by Snellen's types. The sense of light, measured by Treitel's tests was found to be increased eighteen-fold. After the eyes had been rested and light was gradually admitted, the colours were recognised in the following order: red, yellow, green, and lastly blue. When colour fatigue for any particular colour was produced with a glass of that colour, it took a position last in the series. The visual field, both for light and colours was found to be enlarged, but the period of rest required to be longer and the darkness greater. The author concludes, from his experiments, that night blindness is a disturbance in the adaptability of the eye.

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